PATENT

Atty. Dkt. No. APPM/008170/DISPLAY/AHRDWR/RKK

IN THE SPECIFICATION:

Please replace paragraph [0031] with the following amended paragraph:

[0031]   FIG. 2 is a top plan view of one embodiment of the transfer robot 108 that has a single blade or end effector 202 for supporting a substrate 112 (shown in phantom). The end effector 202 of the robot 108 is coupled to a robot body 204 by a linkage 206. The robot body 204 is generally mounted on the centerline 148 of the transfer chamber 140 102 such that the end effector 202 (and substrate 112 held thereon) may be positioned radially and rotationally around the centerline 148 of the transfer chamber 102.

Please replace paragraph [0038] with the following amended paragraph:

[0038]   The processing chamber 104 has a predefined substrate exchange position 312 (shown in phantom by the substrate 112), typically located coaxial with a centerline 360 of the processing chamber 104 that passes through the center of the substrate support 346.   The exchange position 312 is defined by a fixed structure of the processing chamber 104, for example, the center line 360 of the substrate support 346. During system calibration, the robot is taught to move to a taught position that aligns with the exchange position 312 and center line 360.   During substrate transfer, the substrate 112 supported by the end effector 202 is moved to the taught position such that the center line 360 passes through the midpoint of the substrate 122 112 when in the substrate exchange position 312.

Please replace paragraph [0048] with the following amended paragraph:

[0048]   At step 604, a change in state of at least one of the processing chambers 104 or transfer chamber 102 is detected by the controller 304. The detection may include a sensed indicator, a predefined event, or an instruction by the controller 304 to change the state of the processing chambers 104. At step 606, the controller 304, in response

to the change in state, resolves a change in the exchange position 312 within one of the processing chambers 104 relative to the centerline of the transfer chamber 102 based on empirical information stored in the controller's memory 308. Step ~~604~~ 606 may additionally include resolving the change in the exchange position based on elapsed time from one or more of change in states.

Please replace paragraph [0049] with the following amended paragraph:

[0049]   At step 608, the controller 304 determines a second set of robot metrics needed to position the end effector in alignment with the shifted substrate exchange position 402. Generally, the second set of robot metrics, such as the angular position of the first and second links 212, 214, may be stored for continued use if the sensors 302 indicate a steady-state temperature condition. At set 610, a substrate ~~202~~ 112 positioned on the end effector 202 of the robot 108 is moved to the corrected exchange position.